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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,656	12/16/2003	Brent R. Jones	D/A3075Q	6302

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EXAMINER	
LIANG, LEONARD S	

ART UNIT	PAPER NUMBER
2853	

DATE MAILED: 08/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/736,656	JONES, BRENT R.	
	Examiner	Art Unit	
	Leonard S. Liang	2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,7,12-14,16,17 and 19-21* is/are rejected.

7)☒ Claim(s) *6,8-11,15,18* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 7, 12-14, 17, 19, and 20-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Jones et al (US Pat 6530655).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Jones et al discloses:

- {claim 1} A solid ink melt assembly for use in a phase change printer (figure 3); a drip plate with first and second sides (figure 3, reference 60A-D); a lower portion of the plate is shaped to form a drip point (figure 4, reference 52); wherein the drip plate is formed so as not to allow fluid to pass through from the second side to the first side (figure 3, reference 60A-D; column 3, lines 34-44; column 5, line 43 – column 6, line 23); a heater mounted to the first side of the

plate and in direct contact with the plate without any insulating layer therebetween (figure 3, reference 29A-D); wherein the second side of the drip plate is directly exposed to ink sticks for melting (figure 3)

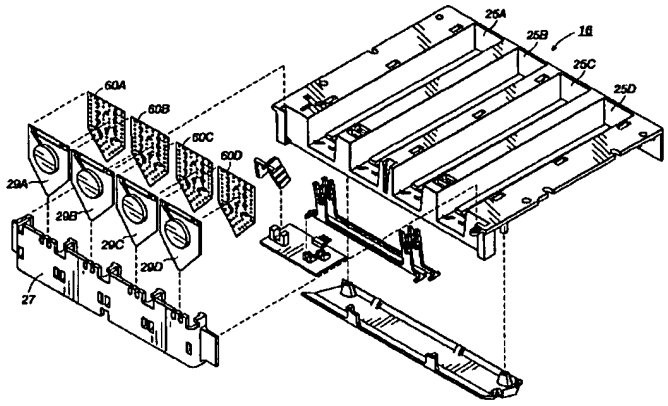

FIG. 3

- {claim 2} wherein the lower portion is not coplanar with an upper portion of the plate (figure 4, reference 52; column 6, lines 64-66)

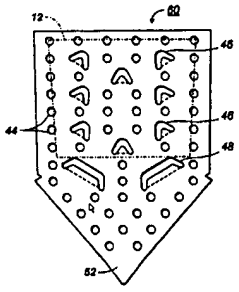

FIG. 4

- {claim 3} wherein the plate material is a nonferrous metal (column 7, lines 16-17)
- {claim 4} wherein the plate material is aluminum (column 7, lines 16-17)
- {claim 7} wherein at least one formed flange extends outward from the second side along at least one side edge (column 7, lines 10-15)

- {claim 12} wherein each assembly is mounted to an ink loader with an individual adapter (figure 3, reference 25A-D)
- {claim 13} a retaining clip to prevent large scale separation of heater elements from the drip plate (figure 3, reference 27)
- {claim 14} An ink loader for use in a phase change printer (figure 3); at least one channel having an entry end and an exit end (figure 3, reference 25A-D); a melt assembly (figure 3); a metallic drip plate with first and second sides, wherein the drip plate is formed so as not to allow fluid to pass through from the second side to the first side (figure 3, reference 60A-D; column 3, lines 34-44; column 5, line 43 – column 6, line 23); a heater mounted directly to the first side without any insulating layer therebetween (figure 3, reference 29A-D)
- {claim 17} wherein the drip point is not coplanar with the first and second sides (figure 4, reference 52; column 6, lines 65-67)
- {claim 19} wherein at least one of the drip plates and the melt plate is made from a non ferrous metal
- {claim 20} wherein the melt plate has void area providing a substantial reduction in mass (figure 3, reference 29A-D; drawn in portion)
- {claim 21} A phase change ink printer (figure 3); an ink loader for use in a phase change ink printer comprising at least one channel having an entry end and an exit end (figure 3, reference 25A-D); a melt assembly, which includes a metallic drip plate with first and second sides, wherein the lower portion of the plate is shaped to form a drip plate (figure 3, reference 60A-D); a heater mounted

directly to the first side without any insulating layer therebetween wherein the drip plate is formed so as not to allow fluid to pass through from the second side to the first side (figure 3, reference 60A-D; column 3, lines 34-44; column 5, line 43 – column 6, line 23)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 5 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al (US Pat 6530655) in view of Allen et al (US Pat 5406315).

Jones et al discloses, with respect to claims 5 and 16 a melt assembly and an ink loader (as applied to claims 1 and 14 above).

Jones et al differs from the claimed invention in that it does not disclose the heater is a closed loop heater.

Allen et al discloses a closed loop heater for heating hot melt ink (abstract).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the open loop heater of Jones et al with the closed loop heater of Allen et al. The motivation for the skilled artisan in doing so is to gain the benefit of controlling the heating of the solid ink.

Allowable Subject Matter

Claims 6, 8-11, 15, and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 6 discloses, "wherein a flange is formed extending outward from a top edge of an upper portion of the drip plate," which was not found, taught, or disclosed in the prior arts.

Claim 8 discloses, "wherein a melt plate first side is affixed to the drip plate second side," which was not found, taught, or disclosed in the prior arts (Based on Jones et al, the melt plate is affixed to the drip plate first side, not second side).

Claims 9-11 depend from objected claim 8.

Claim 15 discloses, "wherein the first side of the melt plate is affixed to the second side of the drip plate," which was not found, taught, or disclosed in the prior arts.

Claim 18 discloses, "wherein the metal plate has formed flanges at the sides and top extending from the melt plate second side," which was not found, taught, or disclosed in the prior arts.

Response to Arguments

Applicant's arguments filed 06/15/06 have been fully considered but they are not persuasive.

As is well known to one of ordinary skill in the art, the purpose of a drip plate in a phase change printing system is to guide molten ink into individual color ink reservoirs in the printer print head (see Jones et al column 3, lines 34-35). Jones et al discloses an improved drip plate

which not only performs this conventional function of guiding molten ink, but also "includes a combination of one or more sized and shaped cutouts and protrusions for anchoring the solidified ink melt front and ink stick when the printer is not in operation and protrusions that impede downward movement of independent portions of a melting ink stick so that they remain in contact with the heated melt plate long enough to substantially melt, thereby inhibiting the unchecked sliding off of large slivers and chunks of ink during melt and delivery." (column 3, lines 35-44). Nowhere in Jones does it disclose that the cutouts allow ink to pass from one side of the drip plate to another. If this were the case, Jones et al would no longer properly perform the function of a drip plate, and Jones et al is presumed to work and function properly. The cutouts of Jones et al only augment the existing function of a drip plate; they do not destroy its function by allowing ink to pass through the drip plate as opposed to guiding it to its proper reservoir. Furthermore, Jones et al makes clear that "the cutouts 44 are small enough that they can be placed near edges and in large numbers over the surface of the drip plate." (column 5, lines 57-59). Presumably, if the cutouts were big enough to allow ink to pass through to the other side of the drip plate, they would not be able to be placed near edges and in large numbers over the surface of the drip plate as disclosed by Jones et al. The applicant seems to suppose that the presence of cutouts necessarily imply that the drip plates in Jones allow fluid to pass through from one side to the other. However, the examiner believes that this is an incorrect assumption, as supported above by Jones et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard S. Liang whose telephone number is (571) 272-2148. The examiner can normally be reached on 8:30-5 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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STEPHEN MEIER
SUPERVISORY PATENT EXAMINER